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ABSTRACT

Aimed at those individuals who are in a position to hire or promote educational researchers or evaluators, this paper provides some practical suggestions for assessing these personnel. Selection of a research or evaluation (R and E) firm is not treated separately from the task of hiring an individual; the quality of work done by a firm depends largely on the people who do the job. Much consideration should be given to specifying job descriptions and requirements. The value of R and E competencies depends upon the specific tasks expected to be performed. A synthesis of the efforts of a task force of the American Educational Research Association to identify educational R and E competencies grouped under 25 general tasks is included in the document. In an effort to identify a universe of evaluation competencies, Stufflebeam and Bunda produced approximately 250 items grouped under eight major categories. The categories and examples of corresponding self assessment items are also included. Several strategies for assessing whether an individual possesses the competencies needed for a specific job are considered. These include discussions of certification, formal training, testing, R and E output, bibliographic and academic characteristics, and membership in special professional associations and directories having more stringent entry requirements than presently exist. (RC)

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SELECTING EDUCATIONAL RESEARCHERS AND EVALUATORS

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ABSTRACT

Aimed at those individuals who are in a position to hire or promote educational researchers or evaluators, this paper provides some practical suggestions for assessing these personnel. Meta-evaluators (evaluators who evaluate evaluations) and referees of research proposals will also find this article relevant. Selection of a research or evaluation (R and E) firm is not treated separately from the task of hiring an individual; the quality of work done by a firm depends largely on the people who do the job. Much consideration should be given to specifying job descriptions and requirements. The value of R and E competencies depends upon the specific tasks expected to be performed. A synthesis of the efforts of a task force of the American Educational Research Association to identify educational R and E competencies grouped under 25 general tasks is included in the document. In an effort to identify a universe of evaluation competencies, Stufflebeam and Bunda produced approximately 250 items grouped under eight major categories. The categories and examples of corresponding self assessment items are also included. These groups of competencies reference tasks, abilities, and knowledges of the almost total exclusion of sensitivities. Interpersonal sensitivities and personality characteristics may be even more important than technical knowledges and skills in insuring the success of R and E. Several strategies for assessing whether an individual possesses the competencies needed for a specific job are considered. These include discussions of certification, formal training, testing, R and E output, bibliographic and academic characteristics, and membership in special professional associations and directories having more stringent entry requirements than presently exist.

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Introduction

This paper provides some practical suggestions for selecting educational researchers and evaluators. It is directed primarily to those individuals who are in a position to hire (or possibly to promote) educational researchers or evaluators. Meta-evaluators

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The material in this publication was prepared pursuant to a contract with the National Institute of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their judgment in professional and technical matters. Prior to publication, the manuscript was submitted to qualified professionals for critical review and determination of professional competence. This publication has met such standards. Points of view or opinions, however, do not necessarily represent the official view or opinions of either these reviewers or the National Institute of Education.

(that is, evaluators who evaluate evaluations) and referees of research proposals and reports will find this article of some relevance.

Personnel selection and promotion is a serious matter. Decisions about applicants and employees have, of course, direct and long-lasting effects on them and their employers. The work of the educational researcher and evaluator is far-reaching, touching in profound ways the lives of those people who have a vested interest in the programs under study. Thus, the assessment of educational researchers and evaluators merits special care.

Many people have provided extensive and thoughtful documents that define educational research and evaluation (R and E) components, that state criteria in judging R and E products, and offer suggestions and materials for the training of researchers and evaluators. Much of this work will be cited. The biases of the author, however, cannot help but enter into the choice of items that were referenced and the application of this material to the personnel-selection problem. Thus, what follows is more than a review; it is a point of view.

The selection of an R or E firm will not be treated separately from the task of hiring an individual. The assumption being made here is that the quality of the work of a firm depends to a large extent on the people who are to do the job. Prestigious institutions often produce shoddy work when tasks are turned over to incapable staff or to individuals who have been frantically recruited after the job is awarded. The contractor should insist on knowing who within the organization will be responsible for the conceptualization and conduct of the major phases of the inquiry and how much time such people will commit to the project.

Although it is true that much attention has been given to definitions of, and distinctions between, R and E (See, for example, 29, 8, and 9 and, more recently 10 and 26), they will be treated together in this paper. Although R and E can be clearly differentiated at a conceptual level, when attention is turned to needed skills and competencies, there are more similarities than differences. Moreover, it is probably fair to say that the importance of any given skill depends less on whether a position is labeled R or E than on the specific job requirements.

Job Description and Requirements

Most people would agree that an appropriate starting place for selecting personnel is with a job description, including a statement of the job requirements. Assessment always involves some criteria, and it is preferable to make these expectations explicit.

Recently, the author was involved with evaluation of a large federal program. Part of the evaluation task required an extensive

amount of interviewing. It was not enough for us to hire an individual with interviewing skills. The population being interviewed was rather special, and it was felt that only interviewers with particular racial and cultural characteristics could be maximally effective. This incident points up the importance of considering not only the competencies and skills of the applicant but also other characteristics that can influence the effectiveness of the person in the job. These characteristics are likely to be specific to, and rather obvious in, a given context.

R and E Competencies

Not all R and E competencies are equally important. As mentioned above, their value depends upon the specific tasks that the individual will be expected to perform. That is why it was stated above that much consideration should be given to specifying job descriptions and requirements. Nevertheless, extant lists of R and E skills can suggest to employers qualifications appropriate for their situations. References to such lists are provided below.

A caveat to remember about R and E competencies is that all skills are not needed initially, nor are they equally difficult to acquire. An applicant may have qualities that offset initial deficiencies. Asked what he would look for in hiring an evaluator, one illustrious educational researcher-evaluator remarked that he would require the applicant to be smart and have statistical and psychometric skills. He argued that with a good mind, the applicant could easily pick up information about evaluation theories and strategies. An inventory of R and E skills should not be considered a catalog of required entry competencies.

Because of their utility in the training of R and E personnel, statements of R and E skills can be found in the documentation of training programs (12).

A task force on research training sponsored by the American Educational Research Association (AERA) produced a list of competencies based on a logical analysis of research and evaluation tasks (9, 25). Later empirical work by several investigators involved either asking respondents to rate the importance of competencies listed a priori (3, 15) or using task analysis interview techniques (1, 16).

A synthesis of the educational R and E competencies identified by the AERA task force has recently appeared (23). The competencies are grouped under the 25 general R and E tasks identified in Table 1. The specific competencies have not been reproduced here.

Table 1

General Research and Evaluation Tasks*

1. Obtaining information about an area to be researched or a phenomenon to be evaluated.

2. Drawing implications from results of prior research and practice.

3. Conceptualizing the research problem or defining the object of the evaluation.

4. Selecting an appropriate inquiry strategy for addressing the research or evaluation problem.

5. Formulating hypotheses or questions to be answered by the study.

6. Specifying data or evidence necessary for a rigorous test of the hypothesis or an unequivocal answer to the research or evaluation question.

7. Selecting appropriate research and evaluation designs to collect data to test the hypothesis or answer the question.

8. Identifying the population to which results should be generalized, and selecting a sample of the population.

9. Applying the research or evaluation design and recognizing or controlling threats to validity.

10. Identifying at appropriate levels of generality the goals of the program to be evaluated.

11. Assessing the value and feasibility of program goals.

12. Identifying standards or norms for judging worth of the phenomenon to be evaluated.

13. Translating broad objectives into specific (measurable) objectives.

14. Identifying classes of variables for measurement.

15. Selecting or developing techniques of measurement.

16. Assessing the validity of measurement techniques.

17. Using appropriate methods to collect data (tests, interviews, unobtrusive measures, etc.).

18. Monitoring the program to detect deviations from design or specified procedures.

19. Choosing and employing appropriate techniques of statistical analysis.

20. Using electronic computers and computer-related equipment.

21. Interpreting and drawing appropriate conclusions from data analysis.

22. Reporting research and evaluation findings and implications.

23. Making recommendations as a result of the evaluation.

24. Providing immediate feedback on program performance for use in decisions about program modification.

25. Obtaining and managing resources (material and human) necessary to conduct the research or evaluation study.

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* From B. R. Worthen, Competencies for Educational Research and Evaluation (23).

Collier (4) has classified evaluation tasks into 16 general groupings. In an effort to define a universe of evaluation competencies, Stufflebeam (20) and Bunda (3) produced approximately 250 items for a self-assessment of evaluation skills. The items were grouped under eight major categories. These categories and examples of corresponding self-assessment items are given in Table 2.

Table 2

Examples of Evaluation Competencies
Organized into Eight Categories*

1. Knowledge of Innovation in Evaluation

   * I can compare and contrast instructional research and evaluation.
   * I can select, organize, and lead groups of professionals to generate alternative program strategies and project designs.

2. Public Relations

   * I can use audio-visual aids appropriately in making oral evaluation reports.
   * I can design an evaluation report to be presented by video-tape.

3. Data Processing

   * I can design and develop a data bank.
   * I can develop forms and procedures for managing the data processing operations of an evaluation system.

4. Educational Measurement

   * I can write forced-choice and free-choice test items.
   * I can select a test that has been normed on an appropriate group.

5. Evaluation Administration

   * I can marshall political support for evaluation activities.
   * I can delineate evaluation authority and responsibility within the agency's organizational structure.

6. Relating Evaluation to Relevant Disciplines

   * I can write an analysis of the relevance of economic theory to educational evaluation.
   * I can state the basic principles of value theory and utility theory and compare and contrast the relevance of these fields for theory development in educational evaluation.

7. Communications

   * I can prepare a 20-minute slide-tape presentation on problems in evaluation.

* I can organize and administer an editorial service in relation to evaluation reports.

8. Research Design Analysis

* I can design controlled research studies of small units in a curriculum.
* I can defend the choice of an oblique rotation or an orthogonal rotation in a factor analysis study.

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* From M. A. Bunda, A Partial Validation of the New Conceptualization of Evaluation Competencies (3) and D. L. Stufflebeam, A New Conceptualization of Evaluation Competencies (20).

Schalock et al. (16) considered tasks and enablers as two facets of work requirements. Tasks are involved in producing an output to its specified standard; enablers are relied upon or utilized in the production of an output. Enablers are of three types: knowledges (facts, generalizations, principles), skills (abilities, proficiencies, expertnesses), and sensitivities (awarenesses, attitudes, personalities). In spite of the similarity between tasks (for example, administer data instruments) and skills (for example, ability to administer data instruments), there does seem to be value in distinguishing between the tasks that a worker will need to perform and the knowledges, skills, and sensitivities purportedly required to complete the task.

The groups of competencies in the accompanying tables reference tasks, abilities, and knowledges to the almost total exclusion of sensitivities. It may be that interpersonal sensitivities and personality characteristics are even more important than technical knowledges and skills in insuring the success of researchers and, especially, of evaluators. (See 27 for an illustration of how such a case might be made.) Evaluators and researchers, for example, must marshall support, attain credibility, facilitate interactions, and communicate effectively. Responsive evaluation (18) yields information audiences want. This requires a person who is aware of the needs of others and capable of working with groups of people. Because of the human element involved in R and E activities, the administrator should not be loath to consider personality characteristics when judging the suitability or promise of an applicant or employee.

Sources of Evidence About Competence

It is one thing to identify important R and E competencies but quite another to evaluate whether a given individual possesses those skills needed in a particular job. This section of the review contains a discussion of several strategies for making this assessment.

The literature on certification is relevant in this regard. For at least 10 years (see, for example, 5), there have been suggestions that educational R and E personnel be certified. Worthen (22) has offered a detailed discussion of issues and procedures in the certification of educational evaluators that also has relevance for researchers. Many of the ideas that follow have been taken from that reference.

Formal Training: This source of evidence of competence has a long history and until recently has been largely uncritically accepted as a valid indicator. Formal training was recommended by Di Lorenzo (5) as the basis for certification. Detailed accounting of desirable course work and other training experiences are often included in descriptions of evaluation training programs (see 6 for a summary). Training requirements for educational researchers have been prepared by a committee of the Council of Europe and are reported by Harnqvist (11).

One should keep in mind that completion of course work is no guarantee that the individual will have the enablers needed to carry out R and E tasks. Nevertheless, training and experience do have some merit, since they are certain to have had some influence on the apprentice.

Tests: A more direct measure of competence can be obtained from tests of R and E skills. Some self-report measures are available (see 3 and 24) but, on the face of it, are suspect as selectors because of the applicant's desire to appear to be qualified. There is some evidence (14), however, that applicants seeking new positions do not over-rate their abilities on these self-report devices.

One serious attempt to construct a formal test of R and E skills (28) lacks normative data that would be needed for meaningful interpretation of test results. A collection of test items in evaluation is currently being assembled by Daniel Stufflebeam (personal Correspondence), but these items will also lack a normative base.

Research and Evaluation Outputs: Schalock et al. (16) identified three types of outputs: conditions, events, and products. Conditions (circumstances) and events (transactions or behaviors) are hard to observe unless the individual being assessed is already

in one's employ. The evaluation of products (such as research articles and evaluation reports) has been the focus of much writing.

Bartos (2) provided a bibliography of several dozen checklists for evaluating research articles. Stufflebeam et al. (19) proposed the following criteria to judge evaluation work: internal validity, external validity, reliability, objectivity, relevance, importance, scope, credibility, timeliness, pervasiveness, and efficiency (later named cost effectiveness). The work on meta-evaluation (that is, evaluating evaluations) is relevant here, and perhaps the most detailed statement is provided by Stufflebeam (21).

As pointed out by Millman and Gowin (13), a difficulty with such lists is they do not provide the criteria to judge the criteria. How does one decide, for example, if research is significant or the measuring devices used in an evaluation are valid? Although guidance in appraising research and evaluation articles is provided in the Millman and Gowin book, it is perhaps an insufficient tool for the busy administrator who, without special training, must immediately judge the quality of an applicant's work. The administrator might better consider sending samples of the work to noninvolved critics.

Despite the obvious appeal of R and E products as a source of evidence about an individual's competence, they do have their drawbacks. Reviewers should remember that applicants do not have complete freedom in the selection and conduct of their work. Further, if a report is produced by many people, it is most difficult to untangle the contributions made by each. Judgments of the quality of R and E products should be tempered by these considerations.

Other Sources: Bibliographic, academic, and other characteristics of the applicant such as experience, sex, or type of doctorate degree earned, have been correlated with subsequent production (usually in a research setting). The results of these studies do not make one hopeful of finding bibliographic and academic characteristics with a strong enough relation to amount or quality of R or E to be taken seriously as selection variables. (For a review of studies in this area, see 17.)

In spite of a lack of positive empirical support, recommendations have often been used. In view of recent regulations on accessibility of records, administrators are cautioned to have direct contact with individuals best able to judge the promise of the applicant. These individuals may not be the ones the applicant has chosen to reference.

Finally, there has been a serious suggestion that the qualifications of professionals in educational research and development be judged by their membership in special professional

associations and directories having more stringent entry requirements than presently exist (7).

This last suggestion points up once again the need for some certifying mechanism to protect both the consumer and the profession. Like a physician, the researcher and evaluator are involved in work that can have serious consequences. Moreover, like the physician, perhaps the researcher and evaluator should have available to them certifying tests similar to medical board specialty examinations. Such tests should require the worker to perform tasks similar to those found on the job. In the absence of certifying procedures, the administrator has no easy way to assess educational researchers and evaluators.

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